

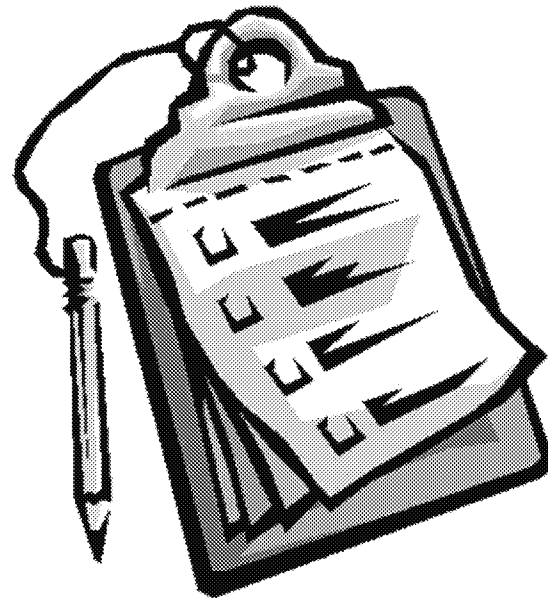
Draft Highest Attainable Condition Procedure

Water Quality Standards and Assessment

Presentation to Willamette Basin Mercury MDV Advisory Committee
April 4, 2019
DEQ Headquarters, Portland, OR

Topics

- Review of HAC concept
- New, improved flow chart!
- Rationale



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- Simplified process that applies to industrial and municipal dischargers.
 - Prioritizes MMP implementation
 - Source reduction can achieve similar Hg reductions at lower environmental harm



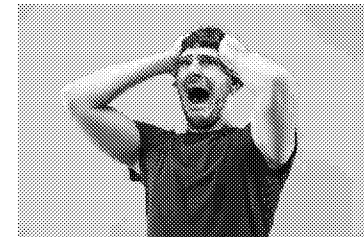
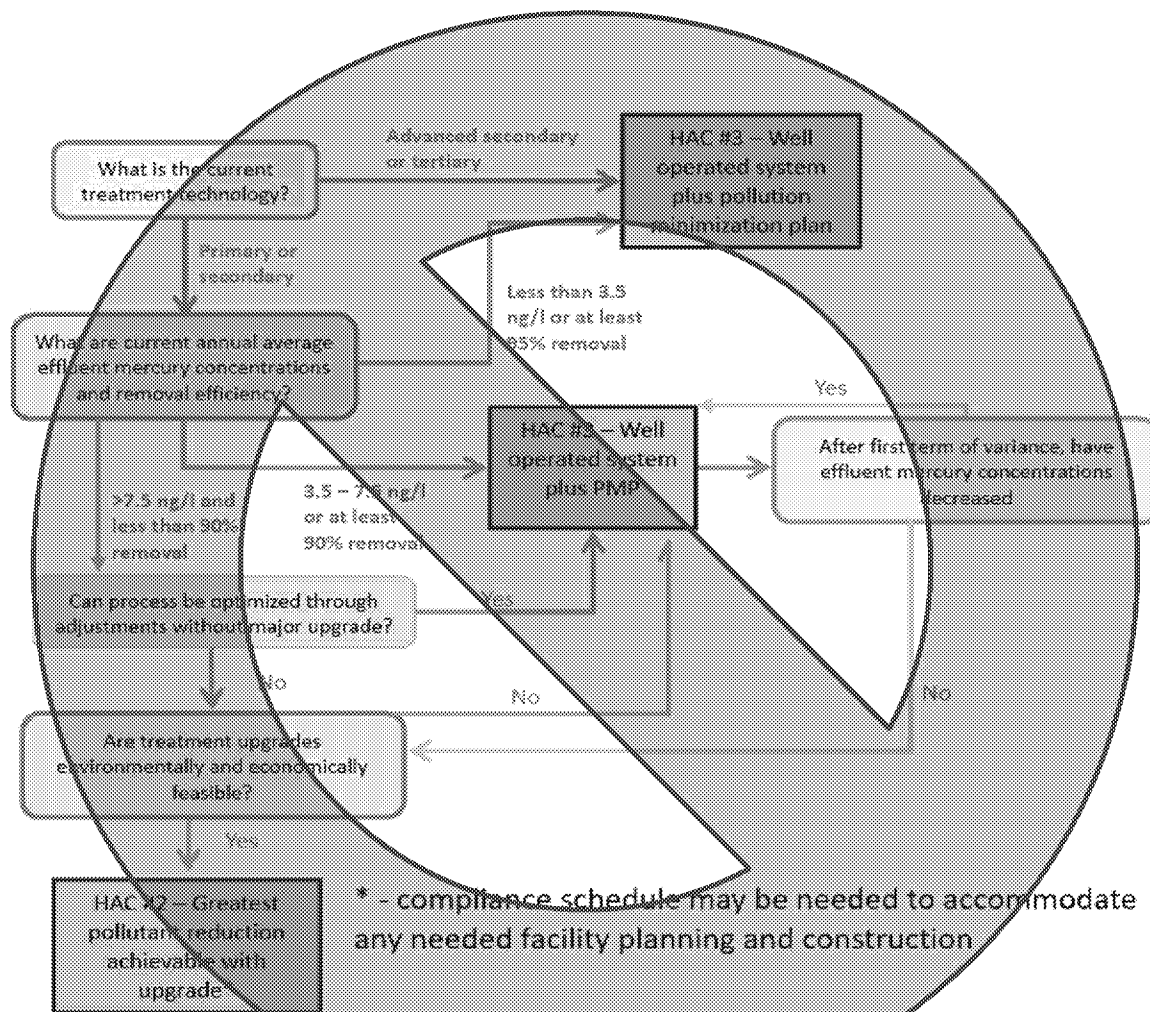
Highest Attainable Condition

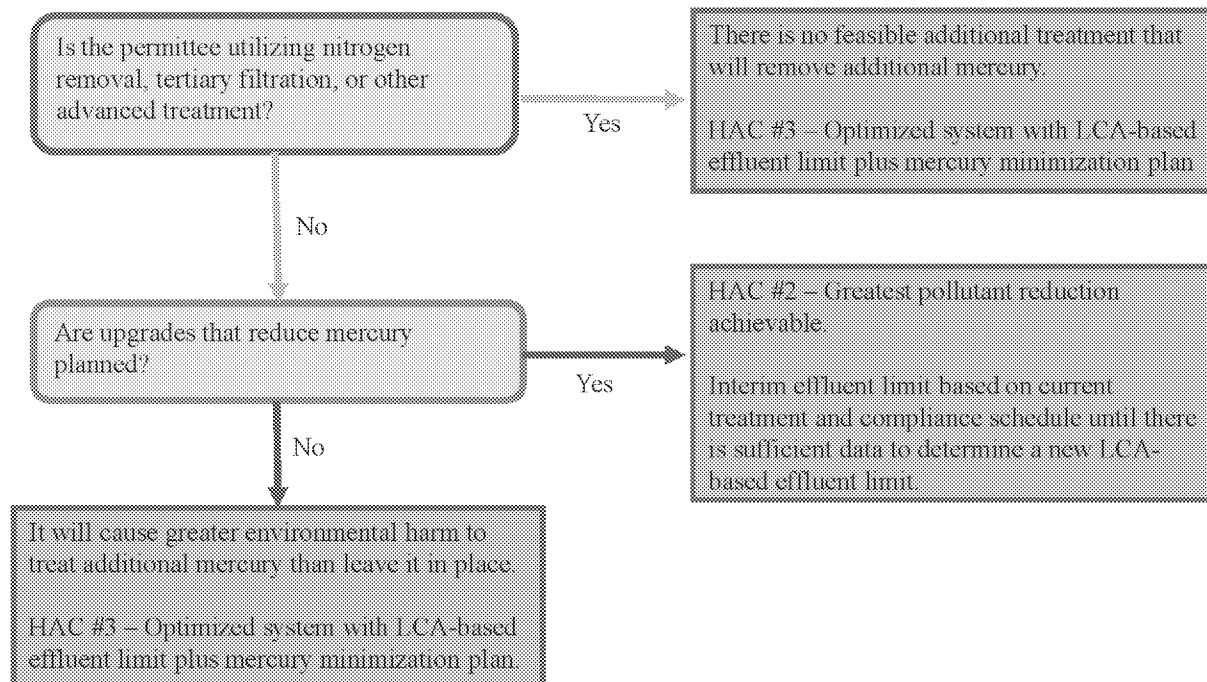
2. Effluent condition with greatest pollutant reduction achievable

or

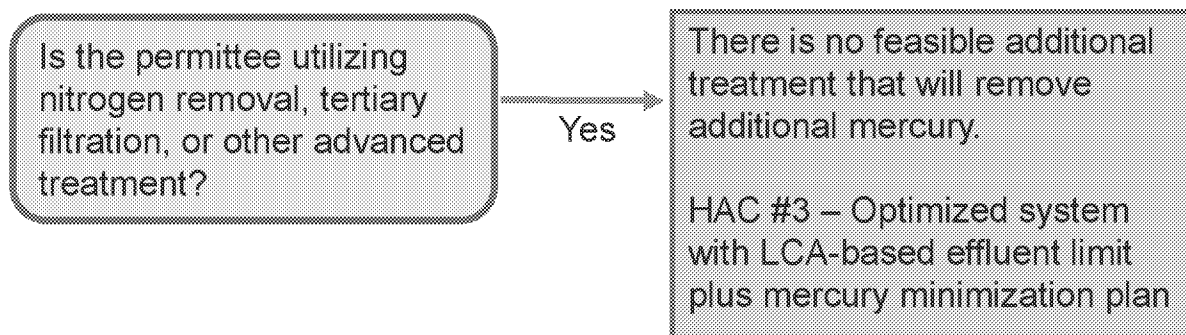
3. Effluent condition that optimizes current technology + pollutant reduction program







Advanced systems

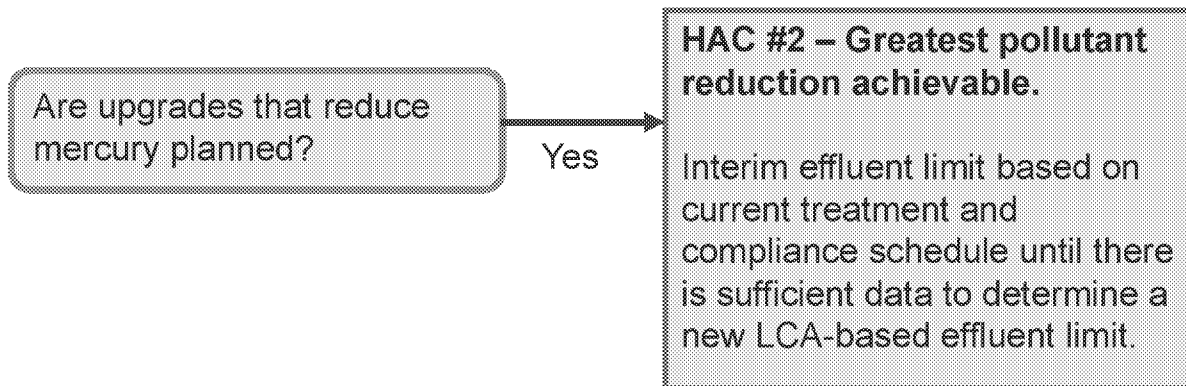


Rationale

- No proven treatment that can achieve additional mercury reductions
- DEQ will revisit technology every five years to determine if there are any feasible technological advances.

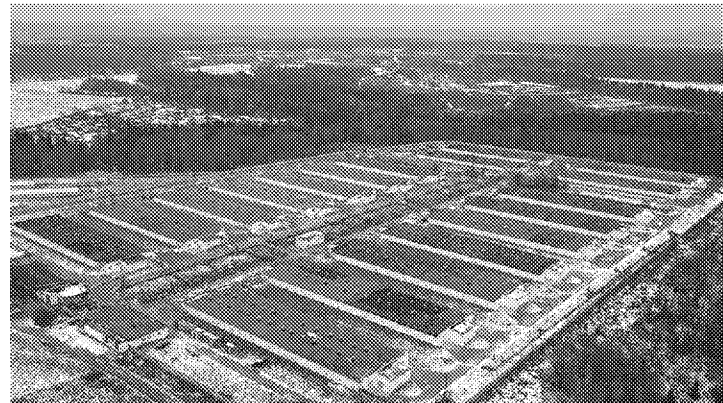


Systems undergoing upgrades

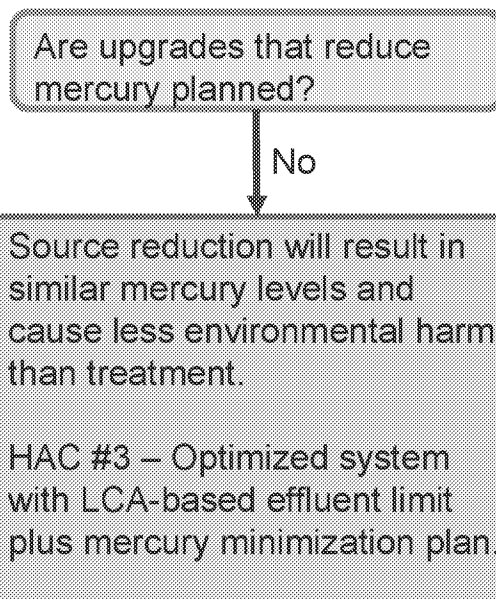


Rationale

- Upgrades can address multiple pollutants.
- Provide facility sufficient time to collect data to develop LCA under new treatment.



All Other Facilities

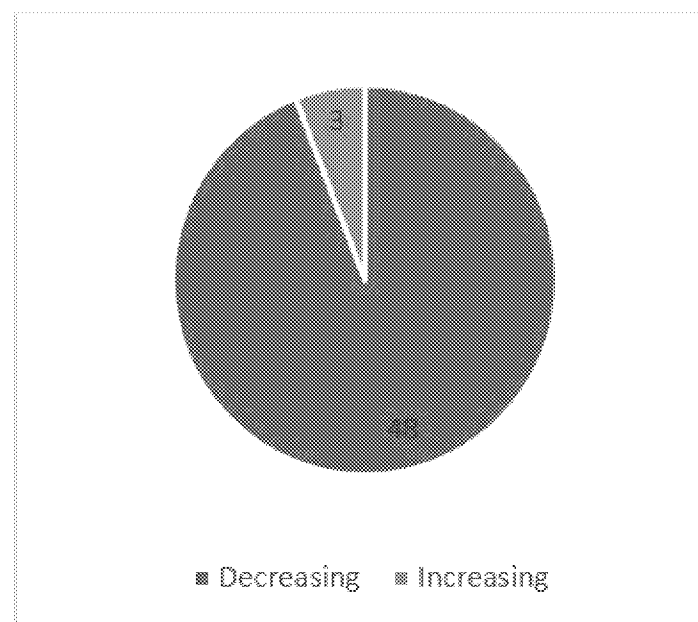


Rationale

- MMP implementation will lead to similar Hg reductions as treatment.
- Treatment causes more environmental harm than MMP implementation.



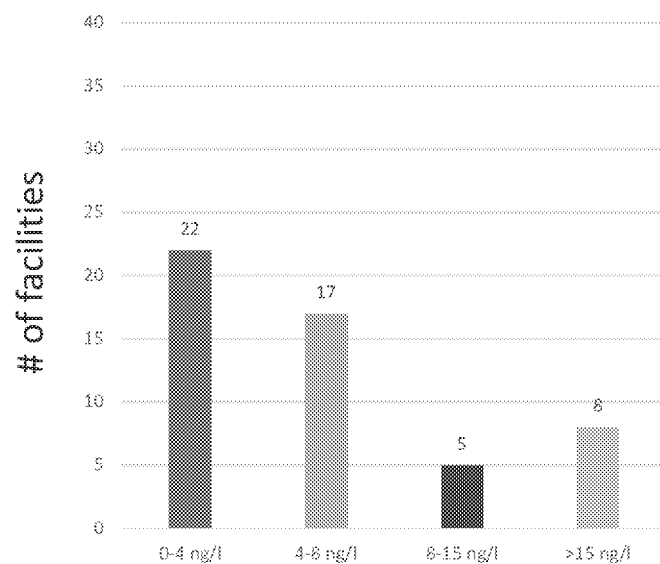
Wisc. POTWs 2004-2018



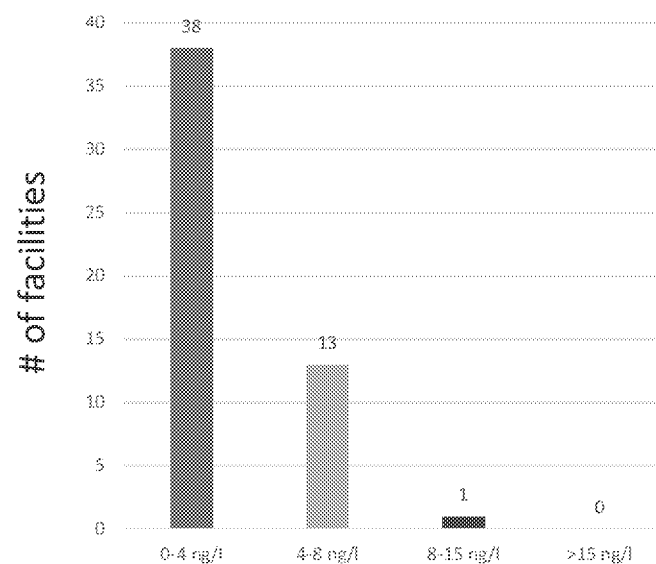
of facilities with increasing or decreasing trend in annual average mercury effluent concentrations 2004-2008 vs. 2014-2018



Wisc. POTWs 2004-2018



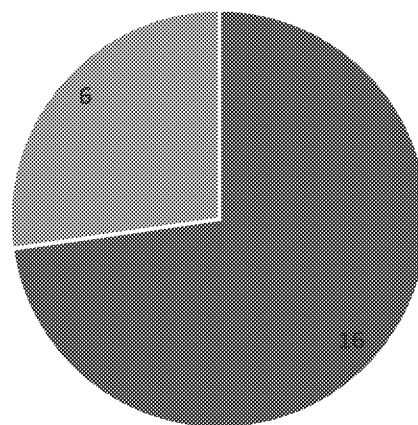
Level currently achievable, 2004-2008



Level currently achievable, 2014-2018



Wisc. Industrials 2004-2018

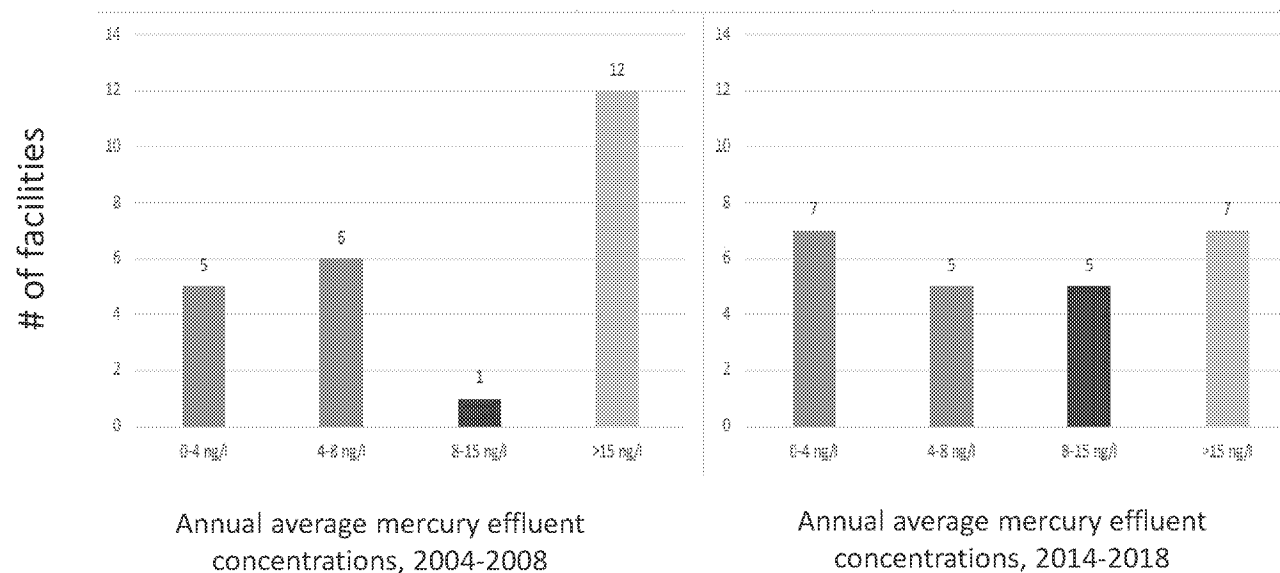


■ Decreasing ■ Increasing

of facilities with increasing or decreasing trend in annual average
mercury effluent concentrations 2004-2008 vs. 2014-2018



Wisconsin Industrials 2004-2018

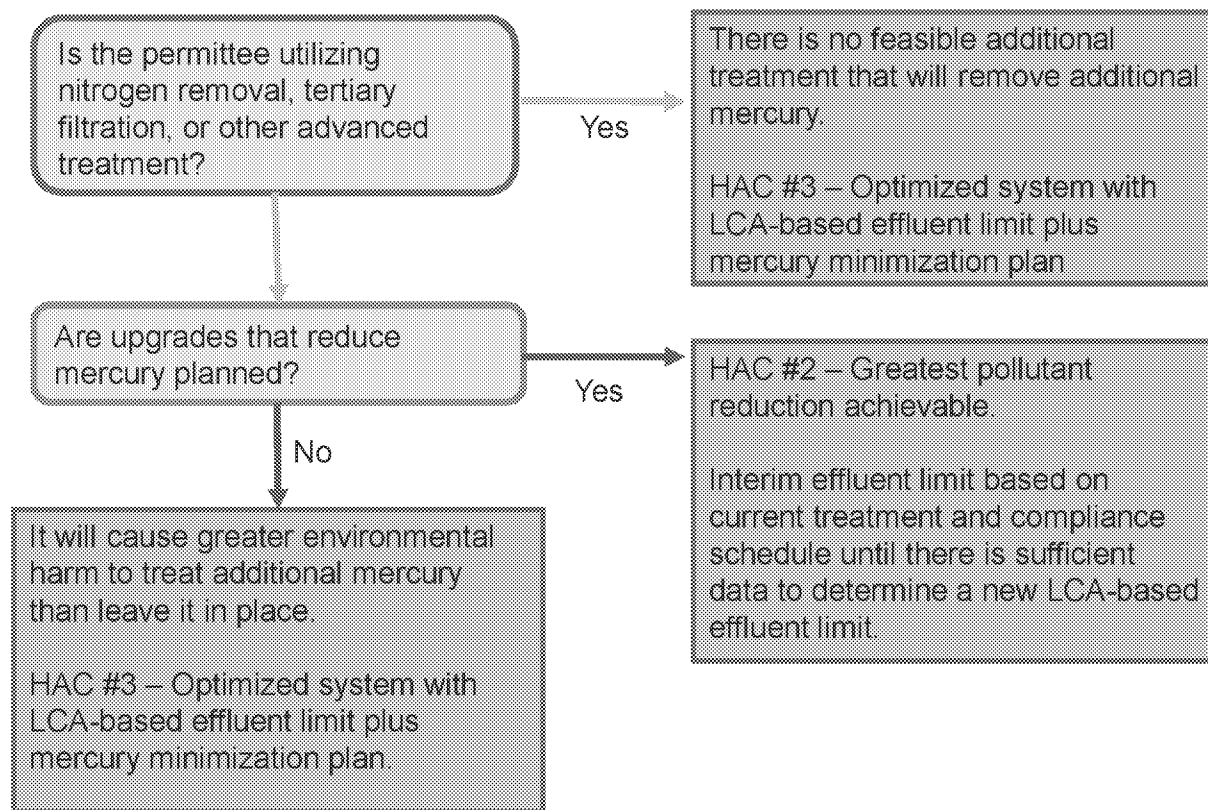


Environmental Harm of Treatment

- MMP: No incremental cost
- Upgrades:
 - >200 MWh/MGD/yr compared to secondary
 - Equiv. to 125 tons CO₂ equiv/yr/MGD.
 - Additional cost of transporting waste, plus risk to reintroduce waste to environment.
- Need to weigh harm of treatment vs. harm of leaving pollution in place for a few years.



Comments and discussion



DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.

